

SUPPORT FOR THE AMENDMENT

Support for the amendment to claim 1 is found in claim 15 as previously presented. Applicants have also corrected the grammar in claim 1 in order to have the plurality of alkyl and/acyl groups be reflective of disubstitution. Support for the amendment to claim 2 is found on page 4, lines 16-18 reciting the presence of from 1-3 groups. Support for claim 21 is found examples 2, 5 and 6 and on page 18, lines 2-5. The disclosure of a ratios of 5:1 to 1:1,000 and 1:2 to 1:30 coupled with examples of 1:20 and 1:1 would lead one of ordinary skill in the art that applicants were in possession of the range 1:1 to 1:20. No new matter would be added to this application by entry of this amendment.

Upon entry of this amendment, claims 1-12, 14 and 16-21 will now be active in this application with claims 1-8, 10-12, 14 and 16-21 being under active consideration.

REQUEST FOR RECONSIDERATION

The claimed invention is directed to a hair cosmetic composition.

Hair quality can be reduced as a result of physical and chemical actions (drying, brushing, shampooing, dyeing, bleaching) and as well as by aging. Hair conditioning composition containing ceramide or glycosylceramide have been proposed but experienced difficulty in formulation and effectiveness due to a high melting point and ease of crystallization of the conditioning agent. Accordingly an improved hair cosmetic composition based on an amphipathic amide lipid is sought.

The claimed invention addresses this problem by providing a hair cosmetic composition comprising an amphipathic amide lipid and at least one of **dialkyl ethers** with alkyl groups having from 18 to 22 carbon atoms, **ethylene glycol dialkyl ethers** with alkyl groups having from 18 to 22 carbon atoms, **ethylene glycol monofatty acid esters** with an acyl group having from 18 to 22 carbon atoms, **ethylene glycol difatty acid esters** with acyl groups having from 18 to 22 carbon atoms, **fatty acid monoethanolamides** with an acyl group having from 18 to 22 carbon atoms, and **acylated  $\beta$ -alanines** with an acyl group having from 18 to 22 carbon atoms. Applicants have discovered that this combination of components, in a ratio of from 5:1 to 1:1,000 to provide a pearlescent and stable dispersion of components in which adsorption to the hair of the amphipathic amide lipid is promoted. Such a composition is nowhere disclosed or suggested in the cited references of record.

The rejection of claims 1-8 and 10-20 under 35 U.S.C. 103(a) over Hoshina et al. EP 1,166,766 in view of Uchiyama et al. U.S. 5,876,705 is respectfully traversed.

The cited combination fails to suggest the combination of amphipathic amide lipid (A) and component (B) in a ratio of from 5:1 to 1:1,000.

Hoshino et al. had been cited for a disclosure of an external preparation which comprises an amphipathic amide lipid but fails to disclose the claimed component (B) nor a cationic polymer.

Uchiyama et al. describes a conditioning shampoo comprising about 5 to about 50 wt. % of a deterative surfactant, about 0.9 to about 10 wt. % of a fatty compound, about 0.05 to about 20 wt. % of a hair conditioning agent and about 20 to about 94.05 wt. % of water (column 2, lines 23-41). In order to assist with dispersion of the silicone hair conditioning agent, a suspending agent may be added (column 21, lines 48-51). Ethylene glycol stearate is described as a preferred dispersant for suspending the silicone hair conditioning agent (column 21, lines 62-65). There is no disclosure of an amphipathic amide lipid. Thus, Uchiyama et al.'s reason for including ethylene glycol stearate in a conditioning shampoo composition would be to act as a suspending agent for a silicone hair conditioning agent.

The two references separately disclose the two components of the claimed composition, but do not suggest the combination of the two in a hair cosmetic composition.

In contrast, the claimed invention is directed to a hair cosmetic composition comprising an amphipathic amide lipid (A) and a component (B) in a ratio of 5:1 to 1:1,000. Applicants note that the claims have been amended to recite a ratio of components (A):(B) of 5:1 to 1:1,000.

Applicants respectfully submit that it would not have been obvious to include components (A) and (B) in a hair cosmetic composition in a ratio of 5:1 to 1:1,000 as the cited art does not disclose any relationship between the two components.

As noted previously, Uchiyama et al. describe that ethylene glycol stearate is a dispersant for **a silicone hair conditioning agent**. The dermatologic preparation of Hoshino et al. fails to disclose a silicone hair conditioning agent. Thus, there would be no motivation to add the dispersant for a silicone hair conditioning agent of Uchiyama et al. into the

dermatologic preparation of Hoshino et al. as suggest in the official action, at an (A):(B) ratio of 5:1 to 1:1,000, as Hoshino et al.'s composition does not contain a silicone hair conditioning agent. Where is the motivation to have a ratio of amphipathic amide lipid to dispersant for a silicone hair conditioning agent of 5:1 to 1:1,000 in a composition which does not contain a silicone hair conditioning agent? There would be no motivation to have a relative ratio of components when the motivation of including a dispersant for a silicone hair conditioning agent is not present. Accordingly, the claimed invention in which the amphipathic amide lipid and component (B) are present in a ratio of 5:1 to 1:1,000 would not have been obvious. Withdrawal of the rejection under 35 U.S.C. 103(a) is respectfully requested.

Moreover, applicants observe an enhancement in hair penetration of the amphipathic amide lipid when combined with component (B). The examiner's attention is directed to Table 1 on page 29 of applicants' specification which evaluates the hair conditioning performance of the claimed combination of components (A) and (B) as compared with compositions lacking component (B) (comparative example 1) or lacking component (A) (comparative example 2). For the examiner's convenience a portion of the data is reproduced below:

Table 1

(Unit of content is wt.%)

|        |   | Examples |        |        | Comparative Examples |        |
|--------|---|----------|--------|--------|----------------------|--------|
|        |   | 1        | 2      | 3      | 1                    | 2      |
| (A)    | Amphipathic amide lipid A                       | 0.5      | -      | 0.5    | -                    | -      |
|        | Amphipathic amide lipid B                       | -        | 0.1    | -      | 2                    | -      |
| (B)    | Ethylene glycol distearyl ester                 | 2        | -      | -      | -                    | 1      |
|        | Distearyl ether                                 | -        | 2      | 2      | -                    | -      |
| Others | Sodium polyoxyethylene (2) lauryl ether sulfate | 10       | 10     | 10     | 10                   | 10     |
|        | Sodium lauryl sulfate                           | 5        | 5      | 5      | 5                    | 5      |
|        | Cocoyl monoethanolamide                         | 0.5      | 0.5    | 0.5    | 0.5                  | 0.5    |
|        | Cationic hydroxyethylcellulose                  | 0.3      | 0.3    | 0.3    | 0.3                  | 0.3    |
|        | Cationic guar gum                               | 0.5      | 0.5    | 0.5    | 0.5                  | 0.5    |
|        | 50 wt.% aq. NaOH soln/50 wt.% citric acid       | q.s. *   | q.s. * | q.s. * | q.s. *               | q.s. * |

|                 |   |               |               |               |               |               |
|-----------------|---|---------------|---------------|---------------|---------------|---------------|
|                 | Purified water                              | Balan-<br>nce | Balan-<br>nce | Balan-<br>nce | Balan-<br>nce | Balan-<br>nce |
|                 | pH  | 3.5           | 3.5           | 3             | 3.5           | 3.5           |
|                 | Buffering capacity (NaOH-gram equivalent/L) | 0.02          | 0.01          | 0.01          | 0.01          | 0.01          |
| Eval-<br>uation | Resilience and strength of hair             | 3.1           | 2.7           | 3.9           | 1.8           | 1.6           |
|                 | Smoothness of hair                          | 3.8           | 3.6           | 3.8           | 2.1           | 1.2           |
|                 | Moist feeling of hair                       | 3.8           | 3.7           | 3.8           | 2.2           | 1.0           |
|                 | Storage stability (50°C × 1 month)          | A             | A             | A             | C             | A             |

\* : amount enough for pH adjustment

Example 1 containing an amphipathic amide lipid and ethylene glycol distearyl ester exhibited high evaluation for hair conditioning performance in terms of resilience and strength of hair, smoothness of hair and moist feeling of hair plus, no change in appearance upon storage at 50°C for one month.

In contrast, comparative example 1, having an amphipathic amide lipid but no ethylene glycol distearyl ester exhibited lower hair care performance and exhibited separation or gelation upon storage at 50°C for one month. Thus, through the combination of amphipathic amide lipid and component (B), applicants are able to observe an improved hair protecting effect and enhanced dispersion stability.

The examiner's attention is further directed to page 3 of applicants' specification which states:

The present **inventors have found** that incorporation of **a compound serving as a pearling agent together with an amphipathic amide lipid** serving as a protecting base in a hair cosmetic composition **improves the dispersion stability** of the amphipathic amide lipid and heightens adsorption of it to the hair to **improve the hair protecting effect** and at the same time, imparts a pleasant feel to hair significantly.

Such statement **must be treated as objectively true, unless** the examiner has reasons, based on sound scientific principles, to doubt the objective truth of applicants' specification.

The burden is on the Patent Office to provide reasons based on scientific principles, to doubt the objective enablement of Applicant's claimed invention. Applicant's disclosure **must be taken as in compliance** with the enabling requirement under 35 USC 112, first paragraph, **unless, there is reason to doubt the objective truth of the**

**statements contained therein.** (*In re Marzocchi*, 439 F.2d 220, 224, 169 USPQ 367, 370 (CCPA 1971)) M.P.E.P. §§2163.04.

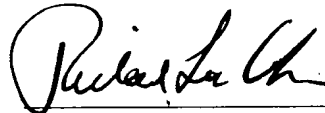
The examiner has provided no basis to doubt the objective truth of applicants disclosure and demonstration such that the claimed demonstration is believed to be commensurate in scope with the claimed invention.

As the cited references fail to provide any motivation to have an amphiphathic amide lipid and component (B) present in a ratio of 5:1 to 1:1,000, the claimed invention would not have been rendered obvious and withdrawal of the rejection under 35 U.S.C. 103(a) is respectfully requested.

Applicants submit that this application is now in condition for allowance and early notification of such action is earnestly solicited.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.  
Norman F. Oblon



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Richard L. Chinn, Ph.D.  
Registration No. 34,305

Customer Number

**22850**

Tel: (703) 413-3000  
Fax: (703) 413 -2220  
(OSMMN 08/07)